

U.S. Pat. App. Ser. No. 10/807,555

Patent

Remarks

I. Allowed and Allowable Subject Matter

The Examiner has indicated that claims 25-37 are allowed. The Examiner further indicated that claims 43-45 and 54-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for his indication of allowed and allowable subject matter.

II. Rejection of Claims 41 and 52 Under 35 U.S.C. § 112, ¶

Claims 41 and 52 were rejected under 35 U.S.C. § 112, ¶6, as "the second annular ring" language lacks antecedent basis. Claims 41 and 52 have been amended by deleting the word, "second." As independent claims 38 and 47 recite "an annular ring" and claims 41 and 52 depend respectively therefrom, Applicants submit that this rejection is now moot.

III. Rejection of Claims 38-42, 46-53 Under 35 U.S.C. § 103

A. Claims 38-42 and 46

Claims 38-40 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,196,998 to Jansen et al. ("Jansen"), in view of U.S. Patent No. 6,632,199 to Tucker et al. ("Tucker"). Claim 42 was rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Jansen in view of Tucker and further in view of U.S. Patent No. 6,027,482 to Imbert ("Imbert"). Claim 46 was rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Jansen in view of Tucker and further in view of U.S. Patent No. 6,206,861 to Mayer ("Mayer").

Independent claim 38 recites, in part, a tip cap for a syringe having an annular ring located within a skirt of the cap, wherein the annular ring has an exterior surface that comprises at least two vertical strips. Claim 38 has been amended to further include that the vertical strips comprise a first strip of a first length and a second strip of a second length. With such configuration, two stopping points between the cap and the syringe are created:

Outer surface 62 of primary internal ring 60 further includes *a plurality of vertical interference strips 68 of varying lengths*, whereby interference strips 63 extend proximally from top section 57 downwardly on outer surface 62 and interference

U.S. Pat. App. Ser. No. 10/807,555

Patent

strips 65 extend proximally from bottom section 56 partially upwardly on outer surface 62 at a distance below strips 63.

* * *

Once a fluid sample is contained in syringe 100, tip cap 20 is removably secured to syringe 100. The tip cap is screwed onto the luer connection of the syringe whereby the luer connection progressively moves in communication with strips 63, plug 40 moves into communication with the conical tip of the syringe and the luer connection fits into first annular space 72. *The movement of the tip cap stops at a first stopping point where the top strips terminate and before the bottom strips begin and at first end 44 of the plug.* This first stopping point is easily felt by the user and indicates to the user that a venting position has been reached and that before the cap is removably secured to the syringe, the user should try and remove excess air bubbles from the fluid sample.

* * *

Then the user proceeds to continue screwing the cap fully onto the syringe, whereby the luer connection further cooperates with the bottom strips on the primary ring and the planar surfaces provide a friction fit with the conically tapered tip of the syringe, whereby the primary is gradually urged into tight engagement with the outer surface of the conically tapered tip.

(See Specification of Original U.S. Pat. No. 6,491,667, col. 4, line 46 – col. 5, line 37 (emphasis added).)

None of the cited references disclose, teach or suggest a tip cap for a syringe, comprising an annular ring having an exterior surface, wherein the exterior surface comprises a first strip of a first length and a second strip of a second length. With regard to Jansen, as the Examiner noted in the Office Action, no vertical strips on an *exterior surface* of an annular ring is shown. In addition, the ribs (84) of Jansen are of a *uniform length* to prevent relative rotation between [a] collar 44 and [an] outer cap 58. Thus, such ribs have no effect on forming a plurality of stopping points – e.g., for venting and locking – when the cap is affixed to the syringe, as taught by the instant application.

U.S. Pat. App. Ser. No. 10/807,555

Patent

Tucker also fails to disclose, teach or suggest such configuration. While Tucker discloses ribs 66, like Jansen, the ribs are of a *uniform length*. In addition, the ribs do not form a plurality of stopping points upon affixing the cap to the syringe.

In addition, none of the other references cited by the Examiner disclose, teach or suggest the tip cap as claimed in claim 38.

Accordingly, claim 38 is allowable over the cited references. In addition, because each of rejected claims 39-42 and 46 depends from claim 38, these dependent claims are likewise allowable over the cited references.

B. Claims 47-53

Claims 47-49 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jansen, in view of U.S. Patent No. 4,667,837 to Vitello et al. ("Vitello"). Claims 50-51 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Jansen in view of Vitello and further in view of Jansen. Claim 53 was rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Jansen in view of Vitello and further in view of Imbert.

None of the cited references disclose, teach or suggest the tip cap of claim 47. Claim 47 discloses a tip cap that, *inter alia*, comprising a housing having an annular skirt, wherein the inner diameter of the skirt at the end of the skirt opposite the bottom portion is greater than the outer diameter of the syringe barrel. With regard to Jansen, the Examiner acknowledged in the Office Action, that the inner diameter of the outer cap 58 is less than the outer diameter of the syringe barrel.

While Vitello discloses a cap having an inner diameter that is greater than the outer diameter of a syringe reservoir, there is no motivation to modify Jansen. Jansen discloses a cap that has an outer cap 58 is necessarily "dimensioned to be insertable into the collar" and "to form a sleeve extending over the collar 44 to retain the collar therein." (See Jansen, col. 5, lines 53-58.) Thus, expanding the inner diameter of such cap such that its inner diameter is greater than the outer diameter of the syringe would cause the Jansen cap not to "retain the collar therein" and

U.S. Pat. App. Ser. No. 10/807,555

Patent

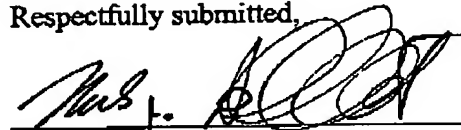
hence not to work as intended. Accordingly, there is no motivation to combine Jansen and Vitello.

In addition, none of the other references cited by the Examiner disclose, teach or suggest the tip cap as claimed in claim 47.

Accordingly, claim 47 is allowable over the cited references. In addition, because each of rejected claims 48-53 depends from claim 38, these dependent claims are likewise allowable over the cited references.

If there are any additional fees related to this Amendment, such fees should be charged to Deposit Account No. 02-1666.

Respectfully submitted,



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